L8 ANSWER 1 OF 11 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1999:426061 BIOSIS
DN PREV199900426061
TI Heat shock protein HSP72 of Streptococcus **pneumoniae**.
AU Brodeur, Bernard R. (1); Martin, Denis; **Hamel, Josee**
CS (1) Sillery Canada
ASSIGNEE: Biochem Vaccines Inc.
PI US 5919620 Jul. 06, 1999
SO Official Gazette of the United States Patent and Trademark Office Patents, (Jul. 6, 1999) Vol. 1224, No. 1, pp. NO PAGINATION.
ISSN: 0098-1133.
DT Patent
LA English

L8 ANSWER 2 OF 11 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB In order to investigate whether pneumococcal heat shock proteins (HSPs) were major immunogens of humoral immune response, we first characterized the heat shock response of S. **pneumoniae**. Three HSPs, HSP62, HSP72 and HSP80, having an apparent molecular mass of 62, 72, and 80 kDa, respectively, were detected by labelling proteins synthesized with (35S)methionine after a shift from 37 degree C to 45 degree C and fluorography of SDS-polyacrylamide gels. Radioimmunoprecipitation and immunoblot analyses with mouse anti-pneumococcal sera revealed that HSP72 was a major immunogen. S. **pneumoniae** HSP62 was another antigen which was precipitated by some immune sera. Anti-HSP72 antibodies appeared after the first immunization with S. **pneumoniae** antigens and subsequent immunization elicited a booster response. Monoclonal antibodies (MAbs) to pneumococcal HSP72 were produced and their specificities defined. The epitopes reactive with four MAbs are highly conserved in S. **pneumoniae** since 20 out of 20 different strains were recognized by each individual MAb. Western blot analysis revealed cross-reactivities with few nonpneumococcal strains. By N-terminal sequence analysis, the S. **pneumoniae** HSP72 was found to belong to the heat shock protein 70 family. That HSP72 is an important highly conserved antigen in S. **pneumoniae** should provide a basis for further investigation of its physiological and, potential pathogenic role.
AN 1997:392608 BIOSIS
DN PREV199799691811
TI Heat shock response of Streptococcus **pneumoniae**: Identification of immunoreactive stress proteins.
AU **Hamel, Josee (1)**; Martin, Denis; Brodeur, Bernard B.
CS (1) Unite de Recherche en Vaccinologie, Lab. et Serv. d'Infectiologie, Centre Hospitalier Univ. de Quebec, Sainte-Foy, PQ G1V 4G2 Canada
SO Microbial Pathogenesis, (1997) Vol. 23, No. 1, pp. 11-21.
ISSN: 0882-4010.
DT Article
LA English

L8 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2003 ACS
AB Chlamydia **pneumoniae** polypeptides (i.e. BVH-CPN1-19) and polynucleotides (i.e. BVH-CPN1-19 gene) encoding them are disclosed. Said polypeptides are antigenic and therefore useful components for the prophylaxis, diagnosis or therapy of Chlamydia infection in animals. Also disclosed are recombinant methods of producing the protein antigens as well as diagnostic assays for detecting Chlamydia bacterial infection, particularly C. **pneumoniae**.
AN 2002:503389 CAPLUS
DN 137:92724
TI Chlamydia **pneumoniae** BVH-CPN1-19 antigens and encoding polynucleotides for diagnosis and therapy of Chlamydial infections
IN Couture, France; **Hamel, Josee**; Brodeur, Bernard R.; Martin, Denis
PA Shire Biochem Inc., Can.

SO Eur. Pat. Appl., 122 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1219635	A2	20020703	EP 2001-130295	20011221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003059896	A1	20030327	US 2001-22832	20011220
PRAI US 2000-256941P	P	20001221		

L8 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2003 ACS
AB The authors disclose the prepn., epitope mapping, and immunogenicity of recombinant proteins, protein fragments, and chimeric constructs of products of the BVH-3, BVH-11, and BVH-11-2 genes of Streptococcus **pneumoniae**.
AN 2001:935636 CAPLUS
DN 136:68697
TI Streptococcal antigens for vaccination
IN **Hamel, Josee**; Ouellet, Catherine; Charland, Nathalie; Martin, Denis; Brodeur, Bernard
PA Shire Biochem Inc., Can.
SO PCT Int. Appl., 113 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001098334	A2	20011227	WO 2001-CA908	20010619
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRAI US 2000-212683P	P	20000620		

L8 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2003 ACS
AB Streptococcus **pneumoniae** proteins and polynucleotides encoding them are disclosed. Said proteins are antigenic and therefore useful vaccine components for the prophylaxis or therapy of Streptococcus infection in animals. Also disclosed are recombinant methods of producing the protein antigens as well as diagnostic assays for detecting Streptococcus bacterial infection.
AN 2000:457211 CAPLUS
DN 133:88221
TI Antigens from Streptococcus **pneumoniae** and their use as vaccines
IN **Hamel, Josee**; Brodeur, Bernard R.; Pineau, Isabelle; Martin, Denis; Rioux, Clement; Charland, Nathalie
PA Biochem Pharma Inc., Can.
SO PCT Int. Appl., 106 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000039299	A2	20000706	WO 1999-CA1218	19991220

WO 2000039299 A3 20001102
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2356836	AA	20000706	CA 1999-2356836	19991220	
EP 1141306	A2	20011010	EP 1999-960748	19991220	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
JP 2002533123	T2	20021008	JP 2000-591190	19991220	
NO 2001003045	A	20010820	NO 2001-3045	20010619	
PRAI US 1998-113800P	P	19981223			
WO 1999-CA1218	W	19991220			

L8 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2003 ACS

AB Novel heat shock proteins (HSPs) of Streptococcus **pneumoniae**, Streptococcus pyogenes, and Streptococcus agalactiae having apparent mol. masses of 70-72 kDa, immunol. related polypeptides, the nucleotide and derived amino acid sequences of HSP72 of S. **pneumoniae**, the nucleotide and derived amino acid sequences of HSP70 of S. pyogenes, the nucleotide and derived amino acid sequences of HSP 70 of S. agalactiae, antibodies that binds to the HSPs, and recombinant DNA methods for the prodn. of the HSPs and immunol. related polypeptides are described. The polypeptides, DNA sequences and antibodies of this invention provide new means for the diagnosis, prevention and/or treatment of Streptococcal disease.

AN 1997:155061 CAPLUS
DN 126:156416
TI Streptococcal heat shock proteins, especially HSP70 and HSP72, cDNA sequences, antibodies and vaccines, and infection diagnosis, treatment, and prevention
IN **Hamel, Josee**; Brodeur, Bernard; Martin, Denis; Rioux, Clement
PA Iaf Biovac Inc., Can.; Hamel, Josee; Brodeur, Bernard; Martin, Denis; Rioux, Clement
SO PCT Int. Appl., 155 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9640928	A1	19961219	WO 1996-CA322	19960517
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
US 5919620	A	19990706	US 1995-472534	19950607
CA 2224015	AA	19961219	CA 1996-2224015	19960517
AU 9656828	A1	19961230	AU 1996-56828	19960517
AU 700080	B2	19981217		
EP 832238	A1	19980401	EP 1996-914821	19960517
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1192241	A	19980902	CN 1996-195891	19960517
JP 11507214	T2	19990629	JP 1996-500026	19960517
BR 9609399	A	20010828	BR 1996-9399	19960517
ZA 9603987	A	19971031	ZA 1996-3987	19960520

	NO 9705752	A	19980206	NO 1997-5752	19971205
PRAI	US 1995-472534	A	19950607		
	US 1995-1805P	P	19950804		
	WO 1996-CA322	W	19960517		

L8 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2003 ACS

AB S. **pneumoniae** is a major cause of systematic bacterial infections such as pneumonia, meningitis, otitis and bacteremia. Such infections can be rapidly diagnosed using a monoclonal antibody which is specific against the bacterium, and in particular against surface accessible proteins having mol. masses of 40-kDa and 67-kDa. Monoclonal antibodies Sp-5 and Sp-8 were prepd. by the hybridoma method and shown to bind to pneumococcal proteins with mol. masses of 40- and 67-kDa, resp. Sp-5 did not show immunol. cross reactivity with closely related species or with other Gram-pos. and Gram-neg. bacteria. Sp-8 reacted with 1/83 nonpneumococcal strains indicating that its specific epitope is rarely borne by bacteria other than S. **pneumoniae**.

AN 1994:189740 CAPLUS

DN 120:189740

TI Monoclonal antibodies directed against Streptococcus **pneumoniae**

IN Brodeur, Bernard R.; **Hamel, Josee**

PA Can.

SO Can. Pat. Appl., 19 pp.
CODEN: CPXXEB

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CA 2074585	AA	19931206	CA 1992-2074585	19920723
PRAI	US 1992-888141		19920605		

L8 ANSWER 8 OF 11 USPATFULL

AB Chlamydia **pneumoniae** polypeptides and polynucleotides encoding them are disclosed. Said polypeptides are antigenic and therefore useful components for the prophylaxis, diagnosis or therapy of Chlamydial infection in animals. Also disclosed are recombinant methods of producing the protein antigens as well as diagnostic assays for detecting Chlamydia bacterial infection, particularly C. **pneumoniae**.

AN 2003:86290 USPATFULL

TI Novel chlamydia antigens and corresponding DNA fragments

IN Couture, France, St-David, CANADA
Hamel, Josee, Sillery, CANADA
Brodeur, Bernard R., Sillery, CANADA
Martin, Denis, St-Augustin-de-Desmaures, CANADA
Brassard, Pascal, Plessisville, CANADA
Beaudoin, Frederic, Ste-Foy, CANADA
Prefontaine, Paul, Quebec, CANADA

PA Shire BioChem Inc., Laval, CANADA, H7V 4A7 (non-U.S. corporation)

PI US 2003059896 A1 20030327

AI US 2001-22832 A1 20011220 (10)

PRAI US 2000-256941P 20001221 (60)

DT Utility

FS APPLICATION

LREP MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201

CLMN Number of Claims: 33

ECL Exemplary Claim: 1

DRWN 19 Drawing Page(s)

LN.CNT 1440

L8 ANSWER 9 OF 11 USPATFULL

AB The present invention relates to antigens, more particularly antigens of

Streptococcus pyogenes (also called group A Streptococcus (GAS)) bacterial pathogen which are useful as vaccine component for prophylaxis, therapy and/or diagnostic.

AN 2003:70986 USPATFULL
TI Streptococcus pyogenes polypeptides and corresponding DNA fragments
IN Martin, Denis, St-Augustin-de-Desmaures, CANADA
Rioux, Stephane, Beauport, CANADA
Brodeur, Bernard R., Sillery, CANADA
Hamel, Josee, Sillery, CANADA
Rheault, Patrick, St-Etienne-de-Lauzon, CANADA
PA Shire BioChem Inc., Laval, CANADA (non-U.S. corporation)
PI US 2003049271 A1 20030313
AI US 2002-78531 A1 20020221 (10)
PRAI US 2001-269840P 20010221 (60)
DT Utility
FS APPLICATION
LREP MILLEN, WHITE, ZELANO & BRANIGAN, PC, 2200 CLARENDON BLVD, SUITE 1400, ARLINGTON, VA, 22201
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN 6 Drawing Page(s)
LN.CNT 1262
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 10 OF 11 USPATFULL
AB Murine monoclonal antibodies directed against a novel outer membrane protein (OMP) of Haemophilus influenzae have been isolated and characterized. The gene encoding of the outer membrane protein has also been isolated and characterized. Portions of the DNA sequence of the 15 kD OMP gene are useful as probes to diagnose the presence of Haemophilus influenzae in samples. These DNA's also make available polypeptide sequences of immunoreactive epitopes encoded within the gene, thus permitting the production of polypeptides which are useful as standards or reagents in diagnostic tests and/or as components of vaccines. Monoclonal antibodies directed against epitopes of the 15 kD OMP are also useful for diagnostic tests and as therapeutic agents for passive immunization.

AN 2002:150871 USPATFULL
TI DNA encoding the 15 kD outer membrane protein of Haemophilus influenzae
IN Brodeur, Bernard R., 2401 Maritain, Sillery, Quebec, CANADA
Hamel, Josee, 2401 Maritain, Sillery, Quebec, CANADA G1T 1N6
Munson, Jr., Robert S., 4825 Canterwood Ct., Hilliard, OH, United States 43026
Grass, Susan, 4555 Southridge Pines Dr., St Louis, MO, United States 63128
PI US 37768 E1 20020625
US 5503992 19960402 (Original)
AI US 1998-53945 19980402 (9)
US 1993-61314 19930907 (Original)
DT Reissue
FS GRANTED
EXNAM Primary Examiner: Graser, Jennifer E.
LREP Foley & Lardner
CLMN Number of Claims: 21
ECL Exemplary Claim: 6,7,8
DRWN 5 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 508
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 11 OF 11 USPATFULL
AB Monoclonal antibodies, and cell lines producing them, which show specificity for surface components of Haemophilus influenzae type b have been developed. These monoclonal antibodies may be used in methods and kits for detecting H. influenzae type b and antigens of H. influenzae

type b and for purification of outer membrane protein to be used as vaccine.

AN 91:36347 USPATFULL

TI Common protein of Haemophilus influenzae type b identified by a monoclonal antibody

IN Brodeur, Bernard R., #404-50 Emmerson, Ottawa, Ontario, Canada K1Y 4P7
Hamel, Josee, 11 Juniper, Aylmer, Quebec, Canada J9H 5Y8
Montplaisir, Serge, Hospital Sainte-Justine, Department of Microbiology and Immunology, 3175, Cote Sainte-Catherine, Montreal, Quebec, Canada H3T 1C5

PI US 5013664 19910507

AI US 1986-867510 19860528 (6)

DT Utility

FS Granted

EXNAM Primary Examiner: Moskowitz, Margaret; Assistant Examiner: Hutzell, Paula

LREP Hoffman, Wasson & Gitler

CLMN Number of Claims: 13

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 966

=>

L3 ANSWER 1 OF 4 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

AB The Pseudomonas aeruginosa chromosome was fractionated with the enzymes SpeI and DpnI, and genomic fragments were separated by PFGE and used for mapping a collection of 40 genes. This permitted the localization of 8 genes previously mapped and of 32 genes which had not been mapped. We showed that a careful search of databases and identification of sequences that were homologous to known genes could be used to design and synthesize DNA probes for the mapping of P. aeruginosa homologues by Southern hybridization with genomic fragments, resulting in definition of the locations of the aro-Z dapB, envA, mexA, groEL, oprH, oprM, oprP, ponA, rpoB and rpoH genetic markers. In addition, a combination of distinct DNA sources were utilized as radioactively labelled probes, including specific restriction fragments of the cloned genes (gIpD, opdE, oprH, oprO, oprP, phoS), DNA fragments prepared by PCR, and single-stranded DNA prepared from phagemid libraries that had been randomly sequenced. We used a PCR approach to clone fragments of the putative yhhF, sucC, sucD, cypH, pbpB, murE, pbpC, soxR, ftsA, ftsZ and envA genes. Random sequencing of P. aeruginosa DNA from phagemid libraries and database searching permitted the cloning of sequences from the acoA, catR, hemD, pheS, proS, oprD, pyo and rpsB gene homologues. The described genomic methods permit the rapid mapping of the P. aeruginosa genome without linkage analysis.

AN 1996:122575 BIOSIS

DN PREV199698694710

TI Physical mapping of 32 genetic markers on the Pseudomonas aeruginosa PAO1 chromosome.

AU Liao, Xiaowen; Charlebois, Isabelle; **Ouellet, Catherine**; Morency, Marie-Josee; Dewar, Ken; Lightfoot, Jeff; Foster, Jennifer; Siehnel, Richard; Schweizer, Herbert; Lam, Joseph S.; Hancock, Robert E. W.; Levesque, Roger C. (1)

CS (1) Microbiol. Mol. Genie Proteines, Dep. Microbiol., Fac. Med., Pavillon Charles-Eugene-Marchand, Univ. Laval, Ste-Foy, PQ G1K 7P4 Canada

SO Microbiology (Reading), (1996) Vol. 142, No. 1, pp. 79-86. ISSN: 1350-0872.

DT Article

LA English

L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS

AB The present invention relates to polypeptides and polynucleotides of Haemophilus influenzae BVH-NTHI1, BVH-NTHI2, BVH-NTHI3, BVH-NTHI4, BVH-NTHI5, BVH-NTHI6, BVH-NTHI7, BVH-NTHI8, BVH-NTHI9, 10, BVH-NTHI11, and BVH-NTHI12 genes. The polypeptides and polynucleotides (DNA or RNA) and fragments are useful for prophylaxis, diagnostic and/or therapy of Haemophilus influenzae infection in humans.

AN 2002:276016 CAPLUS

DN 136:308526

TI Haemophilus influenzae antigens and corresponding DNA fragments for diagnosis and treatment of Haemophilus influenzae infection

IN Hamel, Josee; Couture, France; Brodeur, Bernard R.; Martin, Denis; **Ouellet, Catherine**; Tremblay, Mireille; Charbonneau, Annie; Vayssier, Catherine

PA Shire Biochem Inc., Can.

SO PCT Int. Appl., 58 pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002028889	A2	20020411	WO 2001-CA1402	20011002

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,

US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

	AU 2002011999	A5	20020415	AU 2002-11999	20011002
PRAI	US 2000-236712P	P	20001002		
	WO 2001-CA1402	W	20011002		

L3 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS

AB The authors disclose the prepn., epitope mapping, and immunogenicity of recombinant proteins, protein fragments, and chimeric constructs of products of the BVH-3, BVH-11, and BVH-11-2 genes of Streptococcus pneumoniae.

AN 2001:935636 CAPLUS

DN 136:68697

TI Streptococcal antigens for vaccination

IN Hamel, Josee; **Ouellet, Catherine**; Charland, Nathalie; Martin, Denis; Brodeur, Bernard

PA Shire Biochem Inc., Can.

SO PCT Int. Appl., 113 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001098334	A2	20011227	WO 2001-CA908	20010619

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI	US 2000-212683P	P	20000620

L3 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS

AB The Pseudomonas aeruginosa chromosome was fractionated with the enzymes SpeI and DpnI, and genomic fragments were sepd. by PFGE and used for mapping a collection of 40 genes. This permitted the localization of 8 genes previously mapped and of 32 genes which had not been mapped. We showed that a careful search of databases and identification of sequences that were homologous to known genes could be used to design and synthesize DNA probes for the mapping of P. aeruginosa homologues by Southern hybridization with genomic fragments, resulting in definition of the locations of the aro-2, dapB, envA, mexA, groEL, oprH, oprM, oprP, ponA, rpoB and rpoH genetic markers. In addn., a combination of distinct DNA sources were utilized as radioactively labeled probes, including specific restriction fragments of the cloned genes (gIpD, opdE, oprH, oprO, oprP, phoS), DNA fragments prepd. by PCR, and single-stranded DNA prepd. from phagemid libraries that had been randomly sequenced. We used a PCR approach to clone fragments of the putative yhhF, sucC, sucD, cypH, pbpB, murE, pbpC, soxR, ftsA, ftsZ and envA genes. Random sequencing of P. aeruginosa DNA from phagemid libraries and database searching permitted the cloning of sequences from the acoA, catR, hemD, pheS, proS, oprD, pyo and rpsB gene homologues. The described genomic methods permit the rapid mapping of the P. aeruginosa genome without linkage anal.

AN 1996:55754 CAPLUS

DN 124:166875

TI Physical mapping of 32 genetic markers on the Pseudomonas aeruginosa PAO1 chromosome

AU Liao, Xiaowen; Charlebois, Isabelle; **Ouellet, Catherine**;

Morency, Marie-Josee; Dewar, Ken; Lightfoot, Jeff; Foster, Jennifer; Siehnel, Richard; Schweizer, Herbert; et al.

CS Department of Microbiology and Immunology, University of British Columbia, Vancouver, BC, V6T 1Z3, Can.

SO Microbiology (Reading, United Kingdom) (1996), 142(1), 79-86
CODEN: MROBEO; ISSN: 1350-0872
PB Society for General Microbiology
DT Journal
LA English

=>

L4 ANSWER 1 OF 17 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB The protective potential of antibodies directed against group B streptococcus (GBS) Sip surface protein was determined by using the mouse neonatal infection model. Rabbit Sip-specific antibodies administered passively to pregnant mice protected their pups against a GBS lethal challenge. In addition, active immunization with purified recombinant Sip protein of female CD-1 mice induced the production of specific antibodies that also confer protection to the newborn pups against GBS strains of serotypes Ia/c, Ib, II, III, and V. These data confirm that Sip-specific antibodies can cross the placenta and conferred protective immunity against GBS infections.
AN 2002:495638 BIOSIS
DN PREV200200495638
TI Protection from group B streptococcal infection in neonatal mice by maternal immunization with recombinant Sip protein.
AU Martin, Denis (1); Rioux, Stephane; Gagnon, Edith; Boyer, Martine; Hamel, Josee; **Charland, Nathalie**; Brodeur, Bernard R.
CS (1) Unite de Recherche en Vaccinologie, Centre Hospitalier Universitaire de Quebec, 2705 Boul. Laurier, Pavillon CHUL, Edifice T-367, Sainte-Foy, PQ, G1V 4G2: Denis.Martin@crchul.ulaval.ca Canada
SO Infection and Immunity, (September, 2002) Vol. 70, No. 9, pp. 4897-4901. print.
ISSN: 0019-9567.
DT Article
LA English

L4 ANSWER 2 OF 17 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB Streptococcus suis serotype 2 is a worldwide causative agent of many forms of swine infection and is also recognized as a zoonotic agent causing human disease, including meningitis. The pathogenesis of S. suis infections is poorly understood. Bacteria circulate in the bloodstream in the nonimmune host until they come in contact with brain microvascular endothelial cells (BMEC) forming the blood-brain barrier. The bacterial polysaccharide capsule confers antiphagocytic properties. It is known that group B streptococci (GBS) invade and damage BMEC, which may be a primary step in the pathogenesis of neonatal meningitis. Interactions between S. suis and human endothelial cells were studied to determine if they differ from those between GBS and endothelial cells. Invasion assays performed with BMEC and human umbilical vein endothelial cells demonstrated that unlike GBS, S. suis serotype 2 could not invade either type of cell. Adherence assays showed that S. suis adhered only to BMEC, whereas GBS adhered to both types of cell. These interactions were not affected by the presence of a capsule, since acapsular mutants from both bacterial species adhered similarly compared to the wild-type strains. Lactate dehydrogenase release measurements indicated that some S. suis strains were highly cytotoxic for BMEC, even more than GBS, whereas others were not toxic at all. Cell damage was related to suilysin (S. suis hemolysin) production, since only suilysin-producing strains were cytotoxic and cytotoxicity could be inhibited by cholesterol and antisuilysin antibodies. It is possible that hemolysin-positive S. suis strains use adherence and suilysin-induced BMEC injury, as opposed to direct cellular invasion, to proceed from the circulation to the central nervous system.
AN 2000:106306 BIOSIS
DN PREV200000106306
TI Streptococcus suis serotype 2 interactions with human brain microvascular endothelial cells.
AU **Charland, Nathalie**; Nizet, Victor; Rubens, Craig E.; Kim, Kwang Sik; Lacouture, Sonia; Gottschalk, Marcelo (1)
CS (1) Groupe de Recherche sur les Maladies Infectieuses du Porc, Faculte de Medecine Veterinaire, Universite de Montreal, Saint-Hyacinthe, Quebec, J2S 7C6 Canada
SO Infection and Immunity, (Feb., 2000) Vol. 68, No. 2, pp. 637-643.
ISSN: 0019-9567.
DT Article

LA English
SL English

L4 ANSWER 3 OF 17 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB Streptococcus suis serotype 2 is responsible for a wide variety of porcine infections. In addition, it is considered a zoonotic agent. Knowledge about the virulence factors for this bacterium is limited but its polysaccharide capsule is thought to be one of the most important. Transposon mutagenesis with the self-conjugative transposon Tn916 was used to obtain acapsular mutants from the virulent S. suis type 2 reference strain S735. Clones were screened by colony-dot ELISA with a monoclonal antibody specific for a type 2 capsular epitope and clones that failed to react with the antibody were characterized. Two mutants, 2A and 79, having one and two Tn916 insertions respectively, were chosen for further characterization. Absence of capsule was confirmed by coagglutination, capillary precipitation and capsular reaction tests and by transmission electron microscopy. Absence of capsular polysaccharides correlated with increased hydrophobicity and phagocytosis by both murine macrophages and porcine monocytes compared to the wild-type strain. Furthermore, both mutants were shown to be avirulent in murine and pig models of infection. Finally, mutant 2A was readily eliminated from circulation in mice compared to the wild-type strain, which persisted more than 48 h in blood. Thus, isogenic mutants defective in capsule production demonstrate the importance of capsular polysaccharides as a virulence factor for S. suis type 2.
AN 1998:165092 BIOSIS
DN PREV199800165092
TI Streptococcus suis serotype 2 mutants deficient in capsular expression.
AU **Charland, Nathalie**; Harel, Josee; Kobisch, Marylene; Lacasse, Serge; Gottschalk, Marcelo (1)
CS (1) Groupe de Recherche sur les Maladies Infectieuses du Porc, Faculte de medecine veterinaire, Universite de Montreal, CP 5000, St-Hyacinthe, PQ J2S 7C6 Canada
SO Microbiology (Reading), (Feb., 1998) Vol. 144, No. 2, pp. 325-332. ISSN: 1350-0872.
DT Article
LA English

L4 ANSWER 4 OF 17 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB A monoclonal antibody (mAb Z3) was produced using BALB/c mice immunized with whole cells of Streptococcus suis serotype 2 reference strain S735. Screening by dot-ELISA showed that mAb Z3, of isotype IgG2b, reacted only with reference strains and field isolates of S. suis serotypes 1, 2 and 1/2. The recognized epitope was demonstrated to be polysaccharide in nature by periodate oxidation, and located in the capsule, since mAb Z3 reacted with purified capsular material by immunoblotting and was able to stabilize the capsule as shown by electron microscopy. Further characterization indicated that mAb Z3 may react specifically with the sialic acid moiety of the capsule, a common constituent of the polysaccharidic capsular material of the three capsular types, since sialidase-treated cells did not react with mAb Z3 in immunoblotting or indirect ELISA. Purified mAb Z3 was shown to significantly increase the rate of phagocytosis of S. suis cells by porcine monocytes and to activate the clearance of bacteria from the circulation in experimentally infected mice. However, mAb Z3 only offered partial protection to mice challenged with a minimal lethal dose. Thus, even though the capsule of S. suis seems to be an important virulence factor, the epitope recognized by mAb Z3 does not appear to be involved in complete protection against infection.
AN 1998:33291 BIOSIS
DN PREV199800033291
TI Characterization and protective activity of a monoclonal antibody against a capsular epitope shared by Streptococcus suis serotypes 1,2 and 1/2.
AU **Charland, Nathalie**; Jacques, Mario; Lacouture, Sonia; Gottschalk, Marcelo (1)

CS (1) Groupe Rech. Maladies Infect. Porc, Fac. Med. Vet., Univ. Montreal, CP 5000 St.-Hyacinthe, PQ J2S 7C6 Canada
SO Microbiology (Reading), (Nov., 1997) Vol. 143, No. 11, pp. 3607-3614. ISSN: 1350-0872.
DT Article
LA English

L4 ANSWER 5 OF 17 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB Streptococcus suis capsular type 2 has a capsule rich in sialic acid (NANA). Sialic acid, known to be an antiphagocytic factor for many bacterial species, inhibits the activation of the alternative complement pathway. The role of capsular NANA in virulence, resistance to phagocytosis and intracellular survival of S. suis capsular type 2 was evaluated. In general, a low concentration of NANA was observed for all the S. suis strains tested. In addition, no difference could be found in NANA concentrations between strains of different virulence degrees. Sialic acid concentration increased in the virulent strain 89-1591 and the avirulent strain 90-1330 after in vivo growth with in increased capsular material thickness compared to growth in vitro. No significant difference could be found in the phagocytosis rate by porcine blood monocytes of either strain and strain 89-1591 treated with sialidase or the sialic acid-binding, lectin from Sambucus nigra (SNA I). Intracellular survival of strain 89-1591 decreased after treatments with sialidase or lectin. becoming comparable to that of strain 90-1330. Finally, no difference could be seen in virulence using a murine model. even if strain 89-1591 was treated with the enzyme or the lectin. Thus, NANA does not seem to be a critical virulence factor for S. suis capsular type 2.
AN 1996:422533 BIOSIS
DN PREV199699153589
TI Role of capsular sialic acid in virulence and resistance to phagocytosis of Streptococcus suis capsular type 2.
AU **Charland, Nathalie**; Kobisch, Marylene; Martineau-Doize, Beatric; Jacques, Mario; Gottschalk, Marcelo (1)
CS (1) Groupe Rech. Maladies Infect. Porc, Fac. Med. Vet., Univ. Montreal, CP 5000, St. Hyacinthe, PQ J2S 7C6 Canada
SO FEMS Immunology and Medical Microbiology, (1996) Vol. 14, No. 4, pp. 195-203.
ISSN: 0928-8244.
DT Article
LA English

L4 ANSWER 6 OF 17 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB Two monoclonal antibodies (MAbs) to Streptococcus pneumoniae types 19A and 19F were tested with the 35 reference strains and 334 field strains of Streptococcus suis by dot blotting. Both MAbs reacted with the capsular type 8 reference strain, and one reacted with 69% and one reacted with 100% of 81 S. suis capsular type 8 field strains tested. Epitopes recognized by both MAbs are capsular in origin.
AN 1995:439409 BIOSIS
DN PREV199598453709
TI Streptococcus pneumoniae types 19A and 19F and Streptococcus suis capsular type 8 share common capsular epitopes.
AU Gottschalk, Marcelo (1); Kolberg, Jan; **Charland, Nathalie**; Jacques, Mario
CS (1) Group Recherche Maladies Infectieusses, Fac. Med. Veterinaire, Univ. Montreal, C.P. 5000, Saint-Hyacinthe, PQ J2S 7C6 Canada
SO Journal of Clinical Microbiology, (1995) Vol. 33, No. 9, pp. 2492-2495. ISSN: 0095-1137.
DT Article
LA English

L4 ANSWER 7 OF 17 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB The 35 Streptococcus suis capsular-type reference strains as well as 45 field strains of type 2 were tested with sialic acid-binding lectins from

Sambucus nigra (SNA 1), Triticum vulgaris, Maackia amurensis, Homarus americanus, and Limax flavus. Only types 1, 1/2, 2, 14, 15, and 16 agglutinated with SNA I and/or the T. vulgaris lectin. All field strains agglutinated only with SNA I. Reaction with SNA I was probably due to the sialic acid moiety since it disappeared after sialidase treatment. These results confirm the presence of sialic acid in S. suis with the possible terminal sequence N-acetylneuraminic acid-alpha(2,6)GalNAc.

AN 1995:393848 BIOSIS
DN PREV199598408148
TI Agglutination of Streptococcus suis by Sialic Acid-Binding Lectins.
AU **Charland, Nathalie**; Kellens, Jan T.; Caya, Francois; Gottschalk, Marcelo (1)
CS (1) Groupe Recherche sur les Maladies Infectieuses du Porc, Fac. Med. Vet., Univ. Montreal, St.-Hyancinthe Canada
SO Journal of Clinical Microbiology, (1995) Vol. 33, No. 8, pp. 2220-2221. ISSN: 0095-1137.
DT Article
LA English

L4 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2003 ACS
AB The protective potential of antibodies directed against group B streptococcus (GBS) Sip surface protein was detd. by using the mouse neonatal infection model. Rabbit Sip-specific antibodies administered passively to pregnant mice protected their pups against a GBS lethal challenge. In addn., active immunization with purified recombinant Sip protein of female CD-1 mice induced the prodn. of specific antibodies that also confer protection to the newborn pups against GBS strains of serotypes Ia/c, Ib, II, III, and V. These data confirm that Sip-specific antibodies can cross the placenta and conferred protective immunity against GBS infections.

AN 2002:639187 CAPLUS
DN 137:199865
TI Protection from group B streptococcal infection in neonatal mice by maternal immunization with recombinant Sip protein
AU Martin, Denis; Rioux, Stephane; Gagnon, Edith; Boyer, Martine; Hamel, Josee; **Charland, Nathalie**; Brodeur, Bernard R.
CS Unite de Recherche en Vaccinologie, Centre Hospitalier Universitaire de Quebec et Universite Laval, Ste-Foy, QC, G1V 4G2, Can.
SO Infection and Immunity (2002), 70(9), 4897-4901
CODEN: INFIBR; ISSN: 0019-9567
PB American Society for Microbiology
DT Journal
LA English
RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2003 ACS
AB The authors disclose the prepn., epitope mapping, and immunogenicity of recombinant proteins, protein fragments, and chimeric constructs of products of the BVH-3, BVH-11, and BVH-11-2 genes of Streptococcus pneumoniae.

AN 2001:935636 CAPLUS
DN 136:68697
TI Streptococcal antigens for vaccination
IN Hamel, Josee; Ouellet, Catherine; **Charland, Nathalie**; Martin, Denis; Brodeur, Bernard
PA Shire Biochem Inc., Can.
SO PCT Int. Appl., 113 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI WO 2001098334 A2 20011227 WO 2001-CA908 20010619
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 2000-212683P P 20000620

L4 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2003 ACS
AB Unavailable
AN 2000:691096 CAPLUS
DN 134:39216
TI Role of the capsule in Streptococcus suis serotype 2 virulence
AU **Charland, Nathalie**
CS University of Montreal, Can.
SO (1998) 132 pp. Avail.: UMI, Order No. DANQ43477
From: Diss. Abstr. Int., B 2000, 61(1), 73
DT Dissertation
LA English

L4 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2003 ACS
AB Streptococcus pneumoniae proteins and polynucleotides encoding them are disclosed. Said proteins are antigenic and therefore useful vaccine components for the prophylaxis or therapy of Streptococcus infection in animals. Also disclosed are recombinant methods of producing the protein antigens as well as diagnostic assays for detecting Streptococcus bacterial infection.
AN 2000:457211 CAPLUS
DN 133:88221
TI Antigens from Streptococcus pneumoniae and their use as vaccines
IN Hamel, Josee; Brodeur, Bernard R.; Pineau, Isabelle; Martin, Denis; Rioux, Clement; **Charland, Nathalie**
PA Biochem Pharma Inc., Can.
SO PCT Int. Appl., 106 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000039299	A2	20000706	WO 1999-CA1218	19991220
WO 2000039299	A3	20001102		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2356836	AA	20000706	CA 1999-2356836	19991220
EP 1141306	A2	20011010	EP 1999-960748	19991220

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

JP 2002533123	T2	20021008	JP 2000-591190	19991220
NO 2001003045	A	20010820	NO 2001-3045	20010619
PRAI US 1998-113800P	P	19981223		
WO 1999-CA1218	W	19991220		

L4 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2003 ACS

AB Streptococcus suis serotype 2 is a worldwide causative agent of many forms of swine infection and is also recognized as a zoonotic agent causing human disease, including meningitis. The pathogenesis of S. suis infections is poorly understood. Bacteria circulate in the bloodstream in the nonimmune host until they come in contact with brain microvascular endothelial cells (BMEC) forming the blood-brain barrier. The bacterial polysaccharide capsule confers antiphagocytic properties. It is known that group B streptococci (GBS) invade and damage BMEC, which may be a primary step in the pathogenesis of neonatal meningitis. Interactions between S. suis and human endothelial cells were studied to det. if they differ from those between GBS and endothelial cells. Invasion assays performed with BMEC and human umbilical vein endothelial cells demonstrated that unlike GBS, S. suis serotype 2 could not invade either type of cell. Adherence assays showed that S. suis adhered only to BMEC, whereas GBS adhered to both types of cell. These interactions were not affected by the presence of a capsule, since acapsular mutants from both bacterial species adhered similarly compared to the wild-type strains. Lactate dehydrogenase release measurements indicated that some S. suis strains were highly cytotoxic for BMEC, even more than GBS, whereas others were not toxic at all. Cell damage was related to suilysin (S. suis hemolysin) prodn., since only suilysin-producing strains were cytotoxic and cytotoxicity could be inhibited by cholesterol and antisuilysin antibodies. It is possible that hemolysin-pos. S. suis strains use adherence and suilysin-induced BMEC injury, as opposed to direct cellular invasion, to proceed from the circulation to the central nervous system.

AN 2000:81756 CAPLUS

DN 132:206293

TI Streptococcus suis serotype 2 interactions with human brain microvascular endothelial cells

AU **Charland, Nathalie**; Nizet, Victor; Rubens, Craig E.; Kim, Kwang Sik; Lacouture, Sonia; Gottschalk, Marcelo

CS Groupe de Recherche sur les Maladies Infectieuses du Porc, Faculte de Medecine Veterinaire, Universite de Montreal, Saint-Hyacinthe, QC, J2S 7C6, Can.

SO Infection and Immunity (2000), 68(2), 637-643
CODEN: INFIBR; ISSN: 0019-9567

PB American Society for Microbiology

DT Journal

LA English

RE.CNT 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2003 ACS

AB Streptococcus suis serotype 2 is responsible for a wide variety of porcine infections. In addn., it is considered a zoonotic agent. Knowledge about the virulence factors for this bacterium is limited but its polysaccharide capsule is thought to be one of the most important. Transposon mutagenesis with the self-conjugative transposon Tn916 was used to obtain acapsular mutants from the virulent S. suis type 2 ref. strain S735. Clones were screened by colony-dot ELISA with a monoclonal antibody specific for a type 2 capsular epitope and clones that failed to react with the antibody were characterized. Two mutants, 2A and 79, having one and two Tn916 insertions resp., were chosen for further characterization. Absence of capsule was confirmed by coagglutination, capillary pptn. and capsular reaction tests and by transmission electron microscopy. Absence of capsular polysaccharides correlated with increased hydrophobicity and phagocytosis by both murine macrophages and porcine monocytes compared to the wild-type strain. Furthermore, both mutants were shown to be avirulent in murine and pig models of infection. Finally, mutant 2A was readily eliminated from circulation in mice compared to the wild-type strain, which persisted more than 48 h in blood. Thus, isogenic mutants defective in capsule prodn. demonstrate the importance of capsular polysaccharides as a virulence factor for S. suis type 2.

AN 1998:132456 CAPLUS
DN 128:241746
TI Streptococcus suis serotype 2 mutants deficient in capsular expression
AU **Charland, Nathalie**; Harel, Josee; Kobisch, Marylene; Lacasse, Serge; Gottschalk, Marcelo
CS Groupe de Recherche sur les Maladies Infectieuses du Porc, Faculte de medecine veterinaire, Universite de Montreal, St-Hyacinthe, QC, J2S 7C6, Can.
SO Microbiology (Reading, United Kingdom) (1998), 144(2), 325-332
CODEN: MROBEO; ISSN: 1350-0872
PB Society for General Microbiology
DT Journal
LA English

L4 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2003 ACS
AB A monoclonal antibody (mAb Z3) was produced using BALB/c mice immunized with whole cells of Streptococcus suis serotype 2 ref. strain S735. Screening by dot-ELISA showed that mAb Z3, of isotype IgG2b, reacted only with ref. strains and field isolates of S. suis serotypes 1, 2 and 1/2. The recognized epitope was demonstrated to be polysaccharide in nature by periodate oxidn., and located in the capsule, since mAb Z3 reacted with purified capsular material by immunoblotting and was able to stabilize the capsule as shown by electron microscopy. Further characterization indicated that mAb Z3 may react specifically with the sialic acid moiety of the capsule, a common constituent of the polysaccharidic capsular material of the three capsular types, since sialidase-treated cells did not react with mAb Z3 in immunoblotting or indirect ELISA. Purified mAb Z3 was shown to significantly increase the rate of phagocytosis of S. suis cells by porcine monocytes and to activate the clearance of bacteria from the circulation in exptl. infected mice. However, mAb Z3 only offered partial protection to mice challenged with a minimal LD. Thus, even though the capsule of S. suis seems to be an important virulence factor, the epitope recognized by mAb Z3 does not appear to be involved in complete protection against infection.
AN 1997:751584 CAPLUS
DN 128:47092
TI Characterization and protective activity of a monoclonal antibody against a capsular epitope shared by Streptococcus suis serotypes 1, 2 and 1/2
AU **Charland, Nathalie**; Jacques, Mario; Lacouture, Sonia; Gottschalk, Marcelo
CS Groupe de Recherche sur les Maladies Infectleuses du Porc, Facultdae de medecine veterinaire, Universite de Montreal, St-Hyacinthe, QC, J2S 7C6, Can.
SO Microbiology (Reading, United Kingdom) (1997), 143(11), 3607-3614
CODEN: MROBEO; ISSN: 1350-0872
PB Society for General Microbiology
DT Journal
LA English

L4 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2003 ACS
AB S. suis capsular type 2 has a capsule rich in sialic acid (NANA). Sialic acid, known to be an antiphagocytic factor for many bacterial species, inhibits the activation of the alternative complement pathway. The role of capsular NANA in virulence, resistance to phagocytosis, and intracellular survival of S. suis capsular type 2 was evaluated. In general, a low concn. of NANA was obsd. for all the S. suis strains tested. In addn., no difference could be found in NANA concns. between strains of different virulence degrees. Sialic acid concn. increased in the virulent strain 89-1591 and the avirulent strain 90-1330 after in vivo growth with an increased capsular material thickness compared to growth in vitro. No difference could be found in the phagocytosis rate by porcine blood monocytes of either strain and strain 89-1591 treated with sialidase or the sialic acid-binding lectin from Sambucus nigra (SNA I). Intracellular survival of strain 89-1591 decreased after treatments with

sialidase or lectin, becoming comparable to that of strain 90-1330. Finally, no difference could be seen in virulence using a murine model, even if strain 89-1591 was treated with the enzyme or the lectin. Thus, NANA does not seem to be a crit. virulence factor for S. suis capsular type 2.

AN 1996:429944 CAPLUS
DN 125:165488
TI Role of capsular sialic acid in virulence and resistance to phagocytosis of Streptococcus suis capsular type 2
AU **Charland, Nathalie**; Kobisch, Marylene; Martineau-Doize, Beatrice; Jacques, Mario; Gottschalk, Marcelo
CS Groupe de Recherche sur les Maladies Infectieuses du Porc, Faculte de medecine veterinaire, Universite de Montreal, C.P. 5000, St-Hyacinthe, Que. J2S 7C6, Can.
SO FEMS Immunology and Medical Microbiology (1996), 14(4), 195-203
CODEN: FIMIEV; ISSN: 0928-8244
PB Elsevier
DT Journal
LA English

L4 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2003 ACS
AB Some 35 Streptococcus suis capsular-type ref. strains as well as 45 field strains of type 2 were tested with sialic acid-binding lectins from Sambucus nigra (SNA I), Triticum vulgaris, Maackia amurensis, Homarus americanus, and Limax flavus. Only types 1, 1/2, 2, 14, 15, and 16 agglutinated with SNA I and/or the T. vulgaris lectin. All field strains agglutinated only with SNA I. Reaction with SNA I was probably due to the sialic acid moiety, since it disappeared after sialidase treatment. These results confirm the presence of sialic acid in S. suis with the possible terminal sequence N-acetylneuraminic acid-.alpha.(2,6)GalNAc.

AN 1995:764593 CAPLUS
DN 123:165021
TI Agglutination of Streptococcus suis by sialic acid-binding lectins
AU **Charland, Nathalie**; Kellens, Jan T. C.; Caya, Francois; Gottschalk, Marcelo
CS Faculte de medecine veterinaire, Universite de Montreal, St.-Hyacinthe, Can.
SO Journal of Clinical Microbiology (1995), 33(8), 2220-1
CODEN: JCMIDW; ISSN: 0095-1137
PB American Society for Microbiology
DT Journal
LA English

L4 ANSWER 17 OF 17 MEDLINE
AB The protective potential of antibodies directed against group B streptococcus (GBS) Sip surface protein was determined by using the mouse neonatal infection model. Rabbit Sip-specific antibodies administered passively to pregnant mice protected their pups against a GBS lethal challenge. In addition, active immunization with purified recombinant Sip protein of female CD-1 mice induced the production of specific antibodies that also confer protection to the newborn pups against GBS strains of serotypes Ia/c, Ib, II, III, and V. These data confirm that Sip-specific antibodies can cross the placenta and conferred protective immunity against GBS infections.

AN 2002426442 MEDLINE
DN 22170731 PubMed ID: 12183534
TI Protection from group B streptococcal infection in neonatal mice by maternal immunization with recombinant Sip protein.
AU Martin Denis; Rioux Stephane; Gagnon Edith; Boyer Martine; Hamel Josee; **Charland Nathalie**; Brodeur Bernard R
CS Unite de Recherche en Vaccinologie, Centre Hospitalier Universitaire de Quebec et Universite Laval, Ste-Foy, Canada..
Denis.Martin@crchul.ulaval.ca
SO INFECTION AND IMMUNITY, (2002 Sep) 70 (9) 4897-901.

Journal code: 0246127. ISSN: 0019-9567.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200209
ED Entered STN: 20020817
Last Updated on STN: 20021029
Entered Medline: 20020918

=>

ANSWER 1 OF 8 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1999:426061 BIOSIS
DN PREV199900426061
TI Heat shock protein HSP72 of Streptococcus **pneumoniae**.
AU Brodeur, Bernard R. (1); **Martin, Denis**; Hamel, Josee
CS (1) Sillery Canada
ASSIGNEE: Biochem Vaccines Inc.
PI US 5919620 Jul. 06, 1999
SO Official Gazette of the United States Patent and Trademark Office Patents, (Jul. 6, 1999) Vol. 1224, No. 1, pp. NO PAGINATION.
ISSN: 0098-1133.
DT Patent
LA English

L9 ANSWER 2 OF 8 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB In order to investigate whether pneumococcal heat shock proteins (HSPs) were major immunogens of humoral immune response, we first characterized the heat shock response of S. **pneumoniae**. Three HSPs, HSP62, HSP72 and HSP80, having an apparent molecular mass of 62, 72, and 80 kDa, respectively, were detected by labelling proteins synthesized with (35S)methionine after a shift from 37 degree C to 45 degree C and fluorography of SDS-polyacrylamide gels. Radioimmunoprecipitation and immunoblot analyses with mouse anti-pneumococcal sera revealed that HSP72 was a major immunogen. S. **pneumoniae** HSP62 was another antigen which was precipitated by some immune sera. Anti-HSP72 antibodies appeared after the first immunization with S. **pneumoniae** antigens and subsequent immunization elicited a booster response. Monoclonal antibodies (MAbs) to pneumococcal HSP72 were produced and their specificities defined. The epitopes reactive with four MAbs are highly conserved in S. **pneumoniae** since 20 out of 20 different strains were recognized by each individual MAb. Western blot analysis revealed cross-reactivities with few nonpneumococcal strains. By N-terminal sequence analysis, the S. **pneumoniae** HSP72 was found to belong to the heat shock protein 70 family. That HSP72 is an important highly conserved antigen in S. **pneumoniae** should provide a basis for further investigation of its physiological and, potential pathogenic role.
AN 1997:392608 BIOSIS
DN PREV199799691811
TI Heat shock response of Streptococcus **pneumoniae**: Identification of immunoreactive stress proteins.
AU Hamel, Josee (1); **Martin, Denis**; Brodeur, Bernard B.
CS (1) Unite de Recherche en Vaccinologie, Lab. et Serv. d'Infectiologie, Centre Hospitalier Univ. de Quebec, Sainte-Foy, PQ G1V 4G2 Canada
SO Microbial Pathogenesis, (1997) Vol. 23, No. 1, pp. 11-21.
ISSN: 0882-4010.
DT Article
LA English

L9 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2003 ACS
AB Chlamydia **pneumoniae** polypeptides (i.e. BVH-CPN1-19) and polynucleotides (i.e. BVH-CPN1-19 gene) encoding them are disclosed. Said polypeptides are antigenic and therefore useful components for the prophylaxis, diagnosis or therapy of Chlamydia infection in animals. Also disclosed are recombinant methods of producing the protein antigens as well as diagnostic assays for detecting Chlamydia bacterial infection, particularly C. **pneumoniae**.
AN 2002:503389 CAPLUS
DN 137:92724
TI Chlamydia **pneumoniae** BVH-CPN1-19 antigens and encoding polynucleotides for diagnosis and therapy of Chlamydial infections
IN Couture, France; Hamel, Josee; Brodeur, Bernard R.; **Martin, Denis**
PA Shire Biochem Inc., Can.
SO Eur. Pat. Appl., 122 pp.
CODEN: EPXXDW

DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1219635	A2	20020703	EP 2001-130295	20011221
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2003059896	A1	20030327	US 2001-22832	20011220
PRAI	US 2000-256941P	P	20001221		

L9 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS
AB The authors disclose the prepn., epitope mapping, and immunogenicity of recombinant proteins, protein fragments, and chimeric constructs of products of the BVH-3, BVH-11, and BVH-11-2 genes of Streptococcus **pneumoniae**.
AN 2001:935636 CAPLUS
DN 136:68697
TI Streptococcal antigens for vaccination
IN Hamel, Josee; Ouellet, Catherine; Charland, Nathalie; **Martin, Denis**; Brodeur, Bernard
PA Shire Biochem Inc., Can.
SO PCT Int. Appl., 113 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001098334	A2	20011227	WO 2001-CA908	20010619
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 2000-212683P	P	20000620		

L9 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2003 ACS
AB Streptococcus **pneumoniae** proteins and polynucleotides encoding them are disclosed. Said proteins are antigenic and therefore useful vaccine components for the prophylaxis or therapy of Streptococcus infection in animals. Also disclosed are recombinant methods of producing the protein antigens as well as diagnostic assays for detecting Streptococcus bacterial infection.
AN 2000:457211 CAPLUS
DN 133:88221
TI Antigens from Streptococcus **pneumoniae** and their use as vaccines
IN Hamel, Josee; Brodeur, Bernard R.; Pineau, Isabelle; **Martin, Denis**; Rioux, Clement; Charland, Nathalie
PA Biochem Pharma Inc., Can.
SO PCT Int. Appl., 106 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000039299	A2	20000706	WO 1999-CA1218	19991220
	WO 2000039299	A3	20001102		
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,				

CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2356836	AA	20000706	CA 1999-2356836	19991220	
EP 1141306	A2	20011010	EP 1999-960748	19991220	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
JP 2002533123	T2	20021008	JP 2000-591190	19991220	
NO 2001003045	A	20010820	NO 2001-3045	20010619	
PRAI US 1998-113800P	P	19981223			
WO 1999-CA1218	W	19991220			

L9 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2003 ACS

AB Novel heat shock proteins (HSPs) of Streptococcus **pneumoniae**, Streptococcus pyogenes, and Streptococcus agalactiae having apparent mol. masses of 70-72 kDa, immunol. related polypeptides, the nucleotide and derived amino acid sequences of HSP72 of S. **pneumoniae**, the nucleotide and derived amino acid sequences of HSP70 of S. pyogenes, the nucleotide and derived amino acid sequences of HSP 70 of S. agalactiae, antibodies that binds to the HSPs, and recombinant DNA methods for the prodn. of the HSPs and immunol. related polypeptides are described. The polypeptides, DNA sequences and antibodies of this invention provide new means for the diagnosis, prevention and/or treatment of Streptococcal disease.

AN 1997:155061 CAPLUS

DN 126:156416

TI Streptococcal heat shock proteins, especially HSP70 and HSP72, cDNA sequences, antibodies and vaccines, and infection diagnosis, treatment, and prevention

IN Hamel, Josee; Brodeur, Bernard; **Martin, Denis**; Rioux, Clement

PA Iaf Biovac Inc., Can.; Hamel, Josee; Brodeur, Bernard; Martin, Denis; Rioux, Clement

SO PCT Int. Appl., 155 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9640928	A1	19961219	WO 1996-CA322	19960517
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
US 5919620	A	19990706	US 1995-472534	19950607
CA 2224015	AA	19961219	CA 1996-2224015	19960517
AU 9656828	A1	19961230	AU 1996-56828	19960517
AU 700080	B2	19981217		
EP 832238	A1	19980401	EP 1996-914821	19960517
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1192241	A	19980902	CN 1996-195891	19960517
JP 11507214	T2	19990629	JP 1996-500026	19960517
BR 9609399	A	20010828	BR 1996-9399	19960517
ZA 9603987	A	19971031	ZA 1996-3987	19960520
NO 9705752	A	19980206	NO 1997-5752	19971205
PRAI US 1995-472534	A	19950607		

US 1995-1805P P 19950804
WO 1996-CA322 W 19960517

L9 ANSWER 7 OF 8 USPATFULL
AB Chlamydia **pneumoniae** polypeptides and polynucleotides encoding them are disclosed. Said polypeptides are antigenic and therefore useful components for the prophylaxis, diagnosis or therapy of Chlamydial infection in animals. Also disclosed are recombinant methods of producing the protein antigens as well as diagnostic assays for detecting Chlamydia bacterial infection, particularly C. **pneumoniae**.
AN 2003:86290 USPATFULL
TI Novel chlamydia antigens and corresponding DNA fragments
IN Couture, France, St-David, CANADA
Hamel, Josee, Sillery, CANADA
Brodeur, Bernard R., Sillery, CANADA
Martin, Denis, St-Augustin-de-Desmaures, CANADA
Brassard, Pascal, Plessisville, CANADA
Beaudoin, Frederic, Ste-Foy, CANADA
Prefontaine, Paul, Quebec, CANADA
PA Shire BioChem Inc., Laval, CANADA, H7V 4A7 (non-U.S. corporation)
PI US 2003059896 A1 20030327
AI US 2001-22832 A1 20011220 (10)
PRAI US 2000-256941P 20001221 (60)
DT Utility
FS APPLICATION
LREP MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201
CLMN Number of Claims: 33
ECL Exemplary Claim: 1
DRWN 19 Drawing Page(s)
LN.CNT 1440

L9 ANSWER 8 OF 8 USPATFULL
AB The present invention relates to antigens, more particularly antigens of Streptococcus pyogenes (also called group A Streptococcus (GAS)) bacterial pathogen which are useful as vaccine component for prophylaxis, therapy and/or diagnostic.
AN 2003:70986 USPATFULL
TI Streptococcus pyogenes polypeptides and corresponding DNA fragments
IN **Martin, Denis**, St-Augustin-de-Desmaures, CANADA
Rioux, Stephane, Beauport, CANADA
Brodeur, Bernard R., Sillery, CANADA
Hamel, Josee, Sillery, CANADA
Rheault, Patrick, St-Etienne-de-Lauzon, CANADA
PA Shire BioChem Inc., Laval, CANADA (non-U.S. corporation)
PI US 2003049271 A1 20030313
AI US 2002-78531 A1 20020221 (10)
PRAI US 2001-269840P 20010221 (60)
DT Utility
FS APPLICATION
LREP MILLEN, WHITE, ZELANO & BRANIGAN, PC, 2200 CLARENDON BLVD, SUITE 1400, ARLINGTON, VA, 22201
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN 6 Drawing Page(s)
LN.CNT 1262
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>